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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,157	01/24/2005	Elmar Kibler	3165-116	9202
6449 7590 07/21/2008 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER BROWN, COURTNEY A				
ART UNIT		PAPER NUMBER		
1616				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary

Application No.

10/522,157

Applicant(s)

KIBLER ET AL.

Examiner

COURTNEY BROWN

Art Unit

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8, 9 and 15-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9 and 15-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 1/24/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Receipt of Amendments/Remarks filed on March 13, 2008 is acknowledged. Claims 1, 15-26, 28, and 31 have been amended. Claims 2-7, and 10-14 stand cancelled. Claims 1, 8, 9, 15-32 are being examined for patentability.

Priority

Priority to U.S. Provisional Application 60/397,618 filed on July 23, 2002 is acknowledged.

Information Disclosure Statement

The Information Disclosure Statement (IDS) submitted on January 24, 2005 has been considered by the examiner.

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Double Patenting

Applicant's request to hold in abeyance the nonstatutory obviousness-type double patenting rejection of claims 1-32 over claims 1-35 of Application 10/522,097 is acknowledged. However, the Examiner cannot do this. Therefore, the nonstatutory obviousness-type double patenting rejection is maintained.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-35 of Application No. 10522097. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the co-pending application.

The copending application is directed to the same synergistic herbicidal compositions with the same main component, component A, a 3-heterocyclyl-

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substituted benzoyl derivative and component C which is at least one herbicidal compound selected from the group consisting of at least one of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides in a synergistically effective amount. Applicant is using open terminology (the term, comprising) which means that anything can be added to the composition. It would be obvious to add another component B, which is also a herbicide. Without any unexpected results on record imparting the addition of component B, the inventions are not patentably distinct. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 8, 9, 15-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievernich et al. (CA 2,334,955).

Applicant's Invention

Applicant claims a herbicidal mixture comprising four active ingredients including component A, **4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)-1-methyl-5-hydroxy-1H-pyrazole**; component B, which is at least two herbicides selected from **imazapyr, imazaquin, imazamethabenz-methyl, imazamox, imazapic, and imazethapyr** (wherein component A and component B are present in a weight ratio of 1:0.002 to 1:800); and component C, at least one herbicidal compound selected from the group consisting of at least one of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors (specifically **benzothiadiazone, atochlor, bentazone, and atrazine**) or a variety of other herbicides in a synergistically effective amount. Applicant also claims the herbicidal mixture as defined above wherein there is at least one inert liquid and/or solid carrier, and if desired, at least one surfactant. Additionally, applicant claims a process for preparation of the herbicidal composition and a method of controlling undesired vegetation comprising applying simultaneously or separately to the leaves of said vegetation, the environment of said vegetation and/or seed of said vegetation.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Sievernich et al. teach a synergistic herbicidal mixture comprising at least one 3-heteroxyxyl-substituted benzoyl derivative, or its environmentally compatible salts.

Sievernich et al. teach **4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)-1-methyl-5-hydroxy-1H-pyrazole** as a most particularly preferred 3-heteroxyxyl-substituted benzoyl derivative (page 20, lines 19-21, claims 1,16-26, and 31 ,component A of instant application).

Sievernich et al. teach that the said synergistic herbicidal mixture also comprises a synergistically effective amount of at least one herbicidal compound from the group consisting of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides (page 1, lines 4-40 , page 1a, lines 1-6, page 2, lines 1-6 and claim 1 of reference, claims 1,15-17 and 20 , component C1-C16 of instant application) Specifically, Sievernich et al. teach the use of **imazapyr**, **imazaquin**, **imazamethabenz**, **imazethapyr** (page 28, line 18, claims 1,8,9,16-26 and 31, component B of instant application), **acetochlor** (page 83, line 15, claims 18 and 19, component C of instant application) **benzothidiaziones**, **bentazone**, and **atrazine** (page 84, lines 11,12, and 29, claims 21-26 component C of instant application).

Sivernich et al. teach, in a further particular embodiment, teach a synergistic herbicidal mixture comprising as component A, a 3-heteroxyxlyl-substituted benzoyl derivative and as component B, **two herbicidal compounds** selected from the group consisting of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides (page 34, lines 42-46).

Sievernich et al. teach that as a rule, the mixture comprise components A and B in such weight ratios that the synergistic effect takes place(ratios of components A and C of the instant application) in the mixture preferably range from 1:0.002 to 1:800 (page 38, lines 20-24, claim 28 of instant application). Sievernich et al. teach, in particular, that the mixture comprise components A and B in a weight ratio (ratios of components A and B of the instant application) in the mixture range from 1:0.004 to 1:106 (page 39, lines 13-40, claim 27 of instant application).

Sievernich et al. further teach that the herbicidal compositions have an herbicidally active amount of a synergistic herbicidal mixture and at least one liquid and/or solid carrier and if desired, at least one surfactant (page 2, lines 8-11, claims 29 and 30, solid and/or liquid carrier and surfactant, instant invention).

Sievernich et al. also teach that their invention relates to processes for preparation of said synergistic herbicidal mixtures and to a method of controlling undesirable vegetation (page 2, lines 13-15, claims 30 and 31, process of preparation and method of controlling undesired vegetation of instant application). Sievernich et al. teach that the active ingredients of components A and B can be formulated jointly, but also separately, and/or applied to the plants, their environment and/or seeds jointly or separately (page 37, lines 31-33, claim 34, applied to vegetation and/or seeds of instant application). Sievernich et al. teach that it is preferable to apply the active ingredients simultaneously, but it is possible to apply them separately (page 37, lines 33-35, claim 34, applied simultaneously or in separately of the instant application). Sievernich et al. further teach the mixtures can be applied pre-or post- emergence and that in the case of post-emergence treatment of the plants (page 38, lines 1-2), the herbicidal compositions according to the invention are preferably applied by foliar application (page 38, lines 11-13, claim 32, application to leaves, of instant application).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Sievernich et al. is that the instant invention requires specific synergistic herbicidal combination comprising at least 4 components or active ingredients.

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Sievernich et al. to arrive at a synergistic herbicidal mixture comprising at least four components. Although Sievernich et al. do not teach a synergistic herbicidal mixture with a fourth active ingredient, it would be obvious to one of ordinary skill in the art to devise a synergistic herbicidal mixture comprising 4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)]-1-methyl-5-hydroxy-1H-pyrazole, and at least two herbicidal compounds selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr as taught by Sievernich et al. and to add an additional component C. One would be motivated to make this combination with the expected benefit of having a taught synergistic herbicidal mixture with enhanced effectiveness, depending on the fourth component being used. A composition that consists of the same components will possess the same properties and therefore lead to identical, desired results.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on April 7, 2008 have been fully considered but they are not persuasive. Applicant argues that quaternary synergistic herbicidal mixtures comprising 4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)]-1-methyl-5-hydroxy-1H-pyrazole, and at least two herbicidal compounds selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr, and a fourth herbicidal compound are not disclosed or suggested in Sievernich et al.. This is not persuasive because Sievernich et al. do teach, in a further particular embodiment, a synergistic herbicidal mixture comprising as component A, a 3-heteroxyxlyl-substituted benzoyl derivative and as component B, **two herbicidal compounds** (page 34, lines 42-46). It would be obvious to one of ordinary skill in the art to add a fourth herbicidal component with the expectation of having a taught synergistic herbicidal mixture with enhanced effectiveness, depending on the fourth component being used.

Additionally, Applicant argues that Sievernich et al. provides no indication as to how one might select the inventive components B (selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr) from a wide range of potential mixing partners and to choose an additional component C. This is not persuasive because Sievernich et al. do specifically claim a synergistic mixture with components clopyralid and flumetsulam selected from a group of about 41 different herbicidal compounds (see page 88, claim 13). Thus, this specific claimed group is very narrow in range and it would therefore be easy and common for one of ordinary skill in the art to arrive at a synergistic mixture

comprising two components selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr.

Applicant argues that Sievernich et al. do not demonstrate or provide quaternary examples of synergistic activity of compounds of formula I (i.e., a 3-heteroxyxlyl-substituted benzoyl derivative) with two compounds selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr, but Sievernich et al. do teach synergistic binary mixtures of compound of formula I with imazapyr and that one of skill in the art would not be motivated to use mixtures other than those exemplified as synergistic mixtures. This is not persuasive because one would be motivated to add an additional herbicidal component with the expected benefit of having a taught synergistic herbicidal mixture with enhanced effectiveness, depending on the fourth component being used.

Therefore, the claimed herbicidal combination is not surprising and non-obvious in view of Sievernich et al.

Additionally, in reference to examples 3 to 17 of the specification, the Examiner notes that there is not enough data for the Examiner to determine if the claimed quaternary herbicidal mixture produces a synergistic effect. The examples are deficient in Colby Values for the binary combinations, ternary combinations, and like application rates that are needed when comparing the % damage. Therefore, the Examiner cannot conclusively determine if the claimed quaternary herbicidal combinations produce synergistic herbicidal mixtures.

Conclusion

None of the claims are allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown

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Patent Examiner
Technology Center1600
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/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616